

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning on page 10, line 3 with the following amended paragraph:

A volume grating is a bulk material having a periodic change in refractive index. It is composed of a material whose main component is a UV-curing material, and the interference of light is utilized to form a grating structure. Bragg reflection produced by a periodic refractive index grating formed in bulk results in narrow-band reflection characteristics with a narrow half band width. FIG. 4 shows the transmission characteristics of a volume grating. Narrow-band reflection characteristics produced by Bragg reflection are exhibited in the vicinity of the phase matching wavelength λ of the wavelength conversion element. To fix the wavelength of a semiconductor laser, the half band width $\Delta\lambda_1$ of Bragg reflection is preferably 0.6 nm or less. A ~~wavelength-band width~~ of 0.2 nm or less is even better. A band width of 0.2 nm or less will stabilize the wavelength of the semiconductor laser and yield stable output characteristics when wavelength conversion or the like is utilized.

Please amend the paragraph beginning on page 16, line 28 with the following amended paragraph:

In FIG. 8a, the light that exits a wide stripe semiconductor laser 601 is coupled to a single-mode waveguide 605 through a tapered waveguide 604. The light that propagates through the single-mode waveguide 605 is converted into a higher harmonic wave by a periodic polarization inversion structure 603. A reflective film 606 formed on the end face of the waveguide 605 is made of a dielectric multilayer film, and is designed to transmit at least 95% of

higher harmonic wave and reflect at least 80% of fundamental waves. The reflected fundamental wave is recoupled to the active layer of the semiconductor laser 601. Wavelength selection is performed by a Bragg reflection grating 602 provided to the semiconductor laser 601, and the mode is selected by the single-mode waveguide 605 and the tapered waveguide 604, the result of which is that the semiconductor laser 601 oscillates in single mode for both the lateral mode and the longitudinal mode. This allows high efficiency wavelength conversion to be achieved. Also, because the structure is so simple, it can be easily made smaller, and stability is high.